



CX500
6" x 48" BELT & OSCILLATING
VERTICAL SPINDLE SANDER
User Manual



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GENERAL SAFETY INSTRUCTIONS

Extreme caution should be used when operating all power tools. Know your power tool, be familiar with its operation, read through the owner's manual and practice safe usage procedures at all times.

- ❖ **ALWAYS** read and understand the user manual before operating the machine.
- ❖ **CONNECT** your machine **ONLY** to the matched and specific power source.
- ❖ **ALWAYS** wear safety glasses respirators, hearing protection and safety shoes, when operating your machine.
- ❖ **DO NOT** wear loose clothing or jewelry when operating your machine.
- ❖ **SAFE ENVIRONMENT** is important. Keep the area free of dust, dirt and other debris in the immediate vicinity of your machine.
- ❖ **BE ALERT! DO NOT** use prescription or other drugs that may affect your ability or judgment to safely use your machine.
- ❖ **DISCONNECT** the power source when changing drill bits, hollow chisels, router bits, shaper heads, blades, knives or making other adjustments or repairs.
- ❖ **NEVER** leave a tool unattended while it is in operation.
- ❖ **NEVER** reach over the table when the tool is in operation.
- ❖ **ALWAYS** keep blades, knives and bits sharpened and properly aligned.
- ❖ **ALL OPERATIONS MUST BE** performed with the guards in place to ensure safety.
- ❖ **ALWAYS** use push sticks and feather boards to safely feed your work through the machine.
- ❖ **ALWAYS** make sure that any tools used for adjustments are removed before operating the machine.
- ❖ **ALWAYS** keep the bystanders safely away while the machine is in operation.

CX500–6"x48" Belt/Oscillating Vertical Spindle Sander

SPECIFIC SAFETY INSTRUCTIONS

- ❖ **MAKE SURE** the sander is connected to the matched and specific power source instructed in the manual.
- ❖ **ALL THE GUARDS** must be in place while operating the sander to ensure safety.
- ❖ **MAKE SURE** before making any adjustments, the switch is in the "OFF" position and the cord is un-plugged from the power source.
- ❖ **NEVER** sand more than one work piece at a time.
- ❖ **DO NOT** wear loose clothing while operating this sander.
- ❖ **KEEP YOUR WORK AREA CLEAN.** Cluttered areas and work benches increase the chance of accident.
- ❖ **NEVER LEAVE** the sander unattended while it is running.
- ❖ **KEEP CHILDREN AWAY.** All visitors should be kept at a safe distance from the work area.
- ❖ **DO NOT** force the sander. It will do the job better and will be safer at the operating rate for which it is designed.
- ❖ **ALWAYS** wear dust mask and safety glasses while operating the sander. The tiny pieces of dust produced by the sander can cause serious health problems.
- ❖ **ALWAYS** inspect stock for staples, nails knots or any other foreign material before sanding.
- ❖ **ALWAYS** operate the sander in a well-ventilated area and use a dust collection system for dust removal whenever possible.
- ❖ **ALWAYS** hold the work piece firmly when sanding. When not using the table, i.e. sanding free-hand, grip the work piece with both hands.
- ❖ **USE THE STOP FENCE** when performing horizontal sanding on the belt sander.
- ❖ **MAINTAIN AND SERVICE** your sander regularly as instructed in the user manual.
- ❖ **MAKE SURE** you have read and understood all the safety instructions in the manual and you are familiar with your CX500 sander, before operating it. If you fail to do so, serious injury could occur.

WARNING

The safety instructions given above can not be complete because the environment in every shop is different. Always consider safety first as it applies to your individual working conditions.



CX500–6"x48" Belt/Oscillating Vertical Spindle Sander

FEATURES

MODEL CX500 – 6" x 48" BELT & OSCILATING VERTICAL SPINDLE SANDER

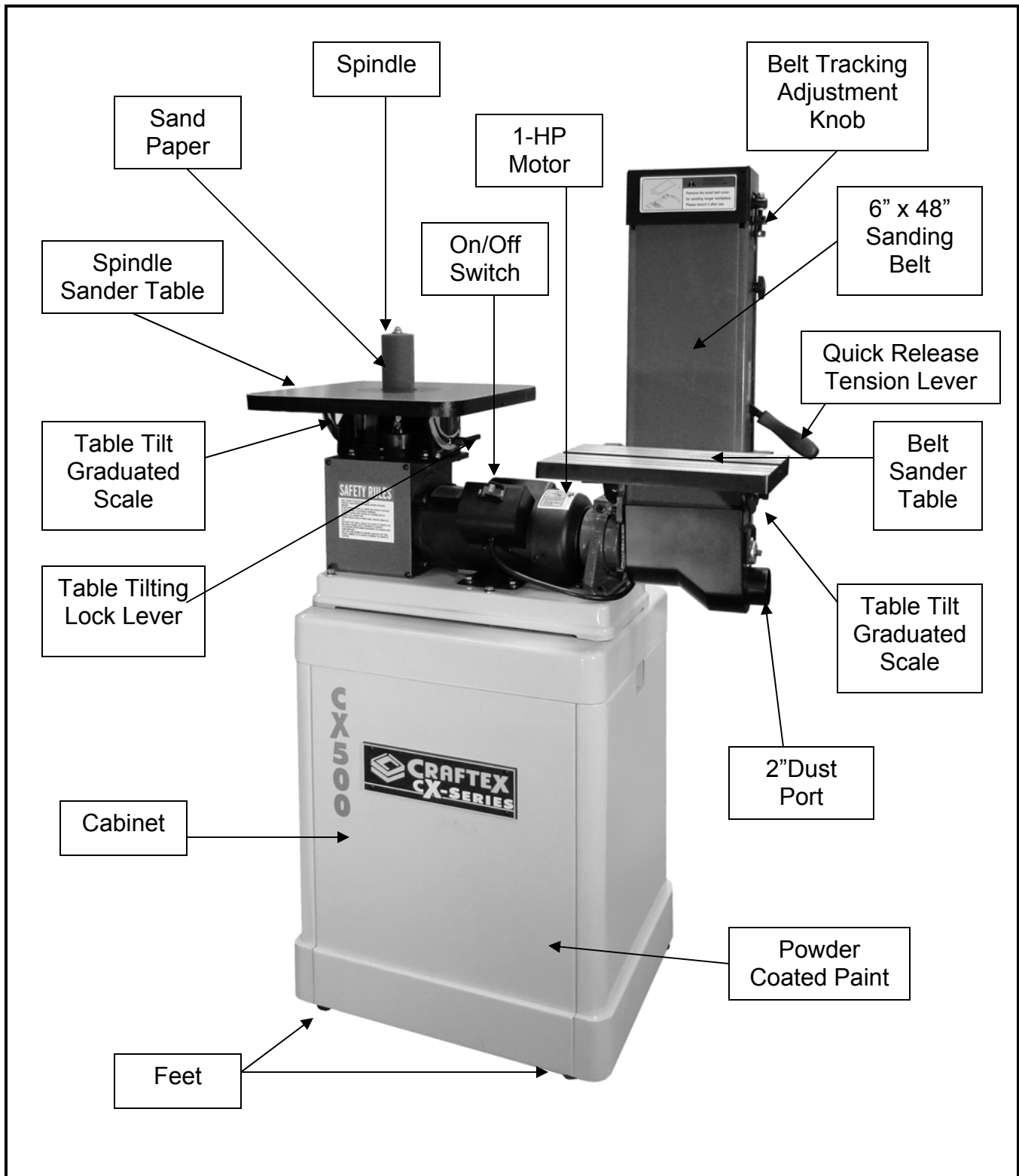
As part of the growing line of Crafttex woodworking equipment, we are proud to offer CX500 -6" x 48" Belt/Oscillating Vertical Spindle Sander. The Crafttex name guarantees Craft Excellence. By following the instructions and procedures laid out in this owner's manual, you will receive years of excellent service and satisfaction. The CX500 is a professional tool and like all power tools, proper care and safety procedures should be adhered to.

- ✧ The oscillating sanding provides an extremely fine sanding finish
- ✧ Easily interchanged spindles
- ✧ Both tables can be tilted
- ✧ Standard accessories can be stored at the side of the machine
- ✧ Powder coated paint

- ✧ Motor 1-HP, 60-HZ, 1720-RPM & 50-HZ, 1420-RPM
- ✧ Spindle Size..... 1/4", 5/8", 1-1/2" and 2"
- ✧ Spindle Table Size..... 14.5" x 14.5"
- ✧ Spindle Table Tilting Angle .. 0° to 45°
- ✧ Belt Size 6" Width x 48" Length
- ✧ Belt Sander Tilt..... 0° to 45°
- ✧ Belt Table Size 10" x 8"
- ✧ Approx Weight..... 74 Kgs
- ✧ Warranty 3 Years

CX500–6"x48" Belt/Oscillating Vertical Spindle Sander

PHYSICAL FEATURES



UNPACKING

The machine is properly packaged and is shipped completely in a crate for safe transportation. When unpacking, carefully inspect the crate and ensure that nothing has been damaged during transit. Open the crate and check that the machine is in good condition.

WARNING

CX500 is a heavy machine, do not over-exert yourself. For safe moving method, use fork truck or get the help of an assistant.

PROPER GROUNDING

Grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

CX500 is equipped with a 120 volt single phase motor which features a 3-conductor cord and a 3-prong grounded plug to fit a grounded type receptacle. See figure-1. Make sure the cord is plugged into a properly installed and grounded power outlet. Do not remove the grounding prong to fit it into a 2-pronged outlet. Always check with a qualified electrician if you are in doubt.

To prevent electrical hazards, have a qualified electrician ensure that the line is properly wired.

This appliance is for use on a normal 120-volt circuit and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the appliance is connected to an

outlet having the same configuration as the plug. If an adaptor plug is used, it must be attached to the metal screw of the receptacle.

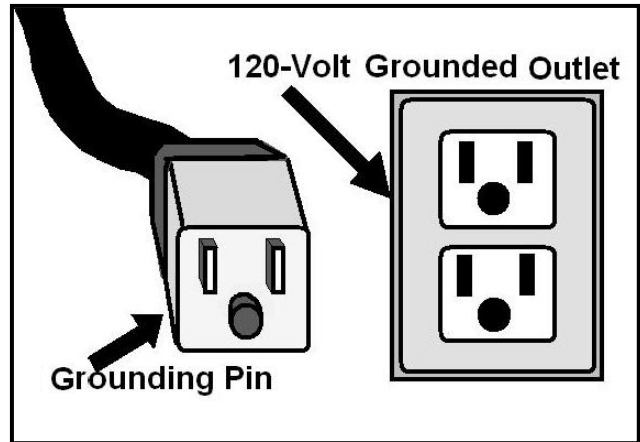


Figure-1 120-Volts Outlet for CX500

WARNING

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.

It is strongly recommended not to use extension cords with your CX500. Always try to position your machine close to the power source so that you do not need to use extension cords.

In case if you really find it necessary to use an extension cord, make sure the extension cord does not exceed 50-feet in length and the cord is 14-gauge to prevent motor damage.

ON/OFF POWER SWITCH

CX500 is equipped with a rocker-type power switch which starts and stops the motor and is located on the junction box of the motor. The switch features a removable locking key to prevent unauthorized operations. When the sander is not in use for a long period of time, simply remove the locking key and store it in a safe place.

To start the sander, insert the locking key and shift the switch to the left.

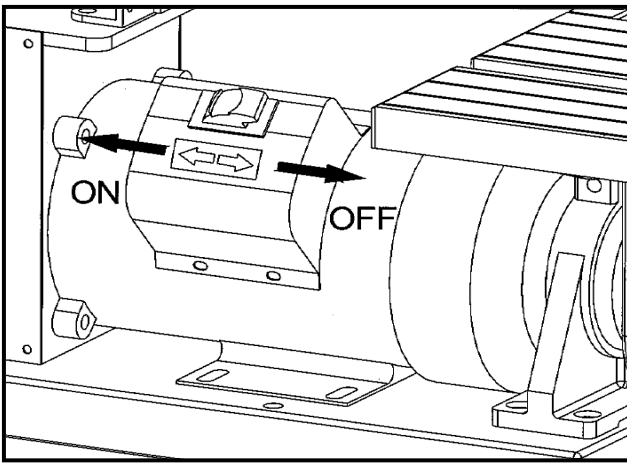


Figure-3 On/Off Switch

IMPORTANT

To prevent any type of accidental injuries, make sure the power switch is in the OFF position before connecting the sander to the power source.

HORIZONTAL/VERTICAL SANDING

1. Loosen the screw securing the sander frame to the motor bracket using a 6mm hexagonal wrench.

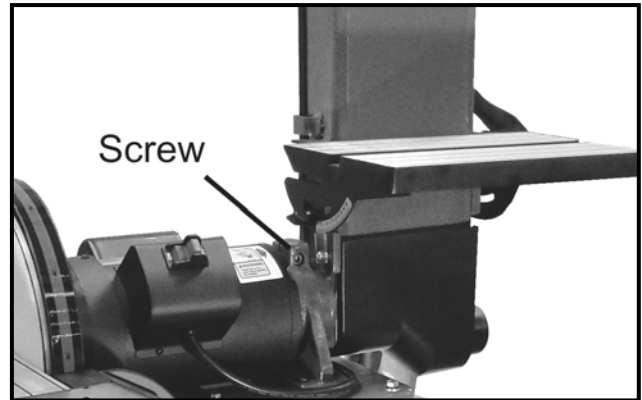


Figure-4 Removing the screw

2. Remove the sanding belt table.
3. Move the belt sander to horizontal / vertical position manually.
4. Tighten the screw securely after the belt sander has been positioned horizontally / vertically.

Make sure to mount the stop fence when performing flat surface sanding.

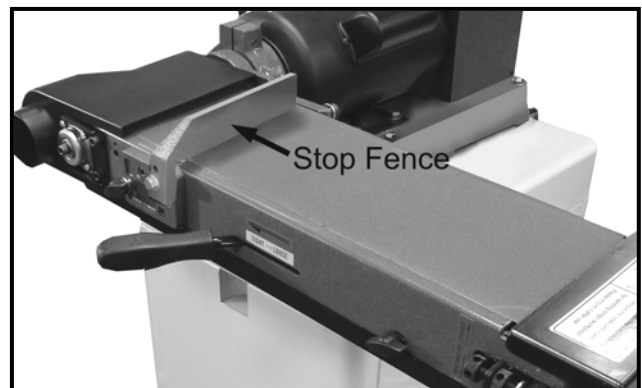


Figure-5 Installing stop fence

TILTING THE BELT SANDING TABLE

The belt sander table can be tilted to front downward from 0° to 45°.

To tilt the table:

1. Turn off the sander and disconnect the cord from the power source.
2. Loosen the two table fix levers located under the right and left sides of the table.
3. Tilt the table to the desired angle. Look at the graduated scale attached, indicating the tilting degree of the table.
4. Re-tighten both fix levers.

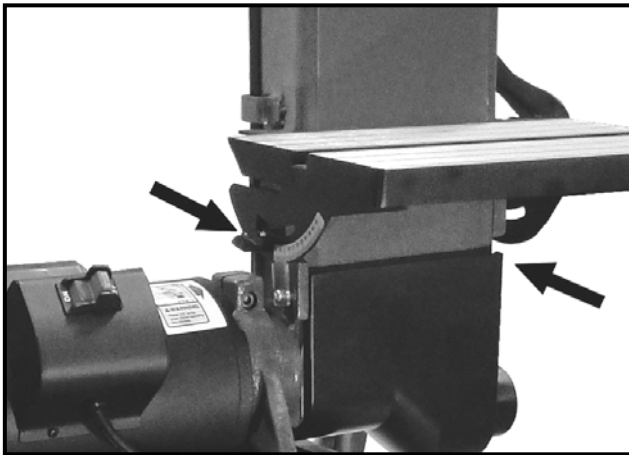


Figure-6 Belt sander tilting scale locks

REMOVING THE SANDING BELT

1. Turn off the sander and disconnect the cord from the power source.
2. Loosen the 5 lock knobs securing the belt guard and remove it. See figure-7

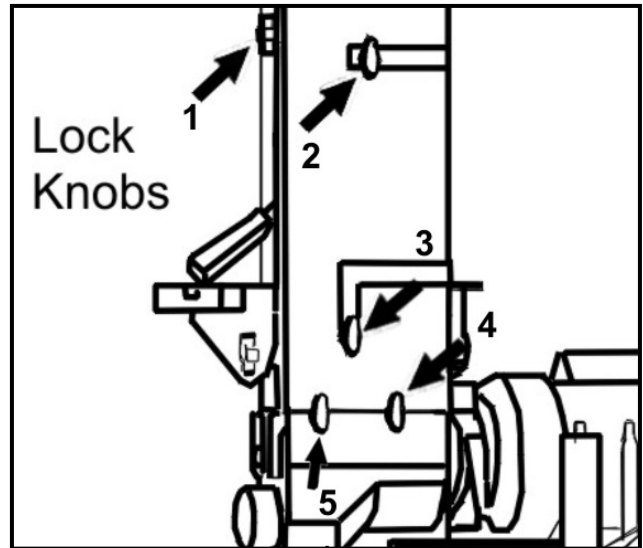


Figure-7 Lock knobs to be loosened

3. Loosen the two lock screws located under the table and remove the belt sander table. See figure-6
4. Remove the table-tilt graduated scale.
5. Loosen the belt tension by shifting the belt tension control lever upward.

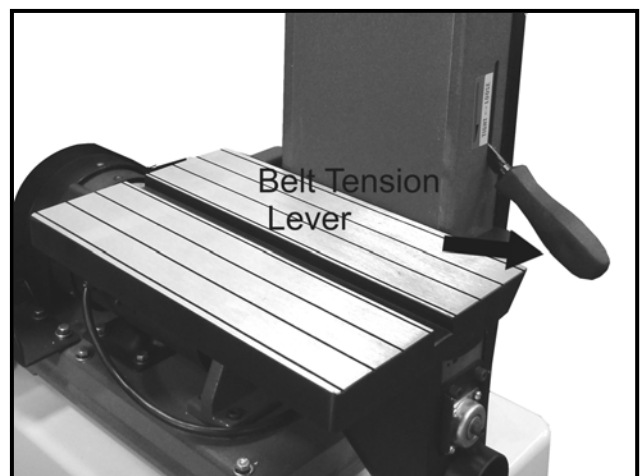


Figure-8 Releasing the belt tension

6. Remove the sanding belt from the right side.

INSTALLING NEW BELT

After the old belt has been removed proceed as follows:

1. Make sure the arrowheads marked on the back of the sanding belt point to the direction indicator attached on the belt guard.
2. Place and center the new belt on both the rollers.
3. Tighten the belt tension by shifting the belt tension control lever downwards.

BELT TRACKING ADJUSTMENT

Belt tracking means where the belt rides on the rollers. The belt should always be centered on both the rollers.

To adjust the sanding belt tracking:

1. Turn the sander on for 2 or 3 seconds and see carefully if the belt tracks on a centered path across both the rollers and turn it off.

If the sanding belt is not riding the rollers on a centered path, adjustment is necessary.

2. Turn off the sander and disconnect the cord from the power source.
3. Loosen the fix nut shown in figure-9.

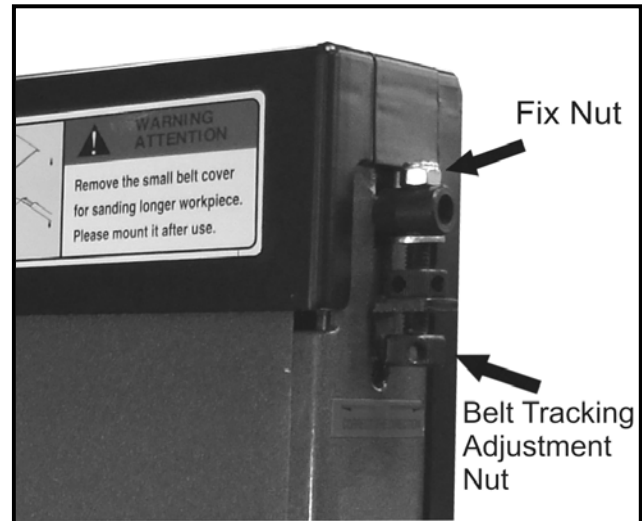


Figure-9 Belt Tracking adjustment

4. Check if the sanding belt is tracking left or right. Turn the adjustment nut (shown in figure-9) counter-clock to move the belt right. Turn the adjustment nut clockwise to move the belt left.
5. Connect the machine to the power source and turn it ON. Observe the blade tracking on the rollers.

If the blade is tracking in the center, the adjustment is properly done.

If the belt is still not tracking in the center, repeat step 2 to 5.

STOP FENCE

When the sanding platen is set for horizontal sanding, the stop fence should be used to prevent the work piece flying out while sanding.

Install the stop fence to the sanding platen using the two lock knobs.

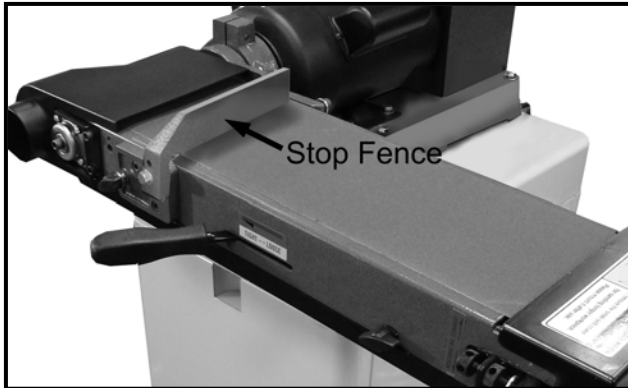


Figure-10 Installing the stop fence

DUST COLLECTION

CX500 features two 2" diameter dust ports to connect to a dust collector.

When connecting to a dust collector, use a proper sized hose and make sure all the connections are sealed tightly.

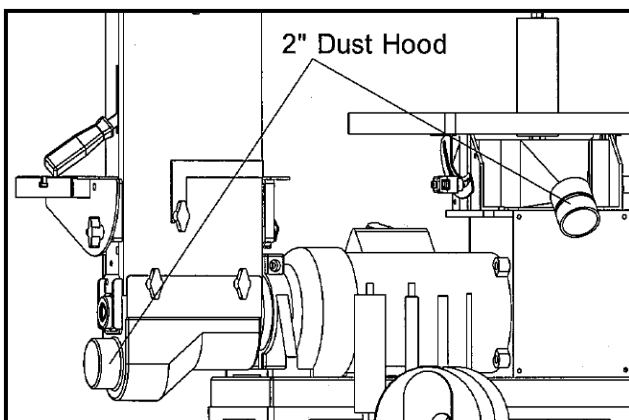


Figure-11 Dust Hoods

MOUNTING THE SPINDLE

CX500 is furnished with five spindle drums sizes:

1/4", 1/2", 5/8", 1-1/2" and 2" diameter spindles

To mount the spindle drum:

1. Turn off the sander and disconnect the cord from the power source.
2. Select the required diameter of spindle drum.
3. Clean the spindle drum and make sure there is no dust or debris on it.
4. Use an open-end wrench to lock the spindle by holding its flat surface and at the same time use another open-end wrench to tighten the spindle drum.
5. Make sure not to over-tighten the spindle as it could cause removal problems later.

IMPORTANT

Always make sure the machine is turned off and the cord is disconnected from the power source when installing/removing any part or making any adjustments.

REPLACING THE TABLE INSERT

The CX500 is supplied with 4 table inserts;

1. Select a proper table insert according to the spindle drum installed.
2. Make sure to use the table insert that comes closest to the spindle drum without touching it.
3. Remove the old insert and clean the insert hole on the table. Make sure there is no dust and debris left which can cause the insert to be out of height alignment with the table.
4. Place the new insert over the spindle drum on the table and make sure it is flat with the table surface.

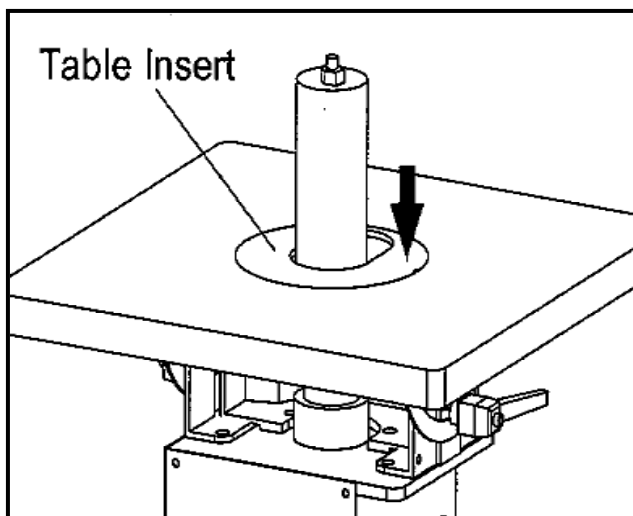


Figure-12 Replacing the table insert

ALIGNING TABLE TO THE SPINDLE

1. Turn off the sander and disconnect the cord from the power source.
2. Set the table at a 90° position horizontally.
3. Place a square on the table with one side touching against the spindle.

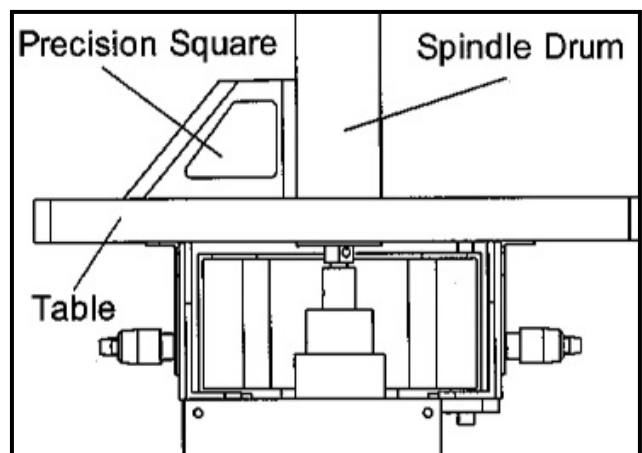


Figure-13 Placing the square

4. Use an open-end wrench to turn the machine leveling adjustment nut (located under the rear end of the table) on the rear support screws.

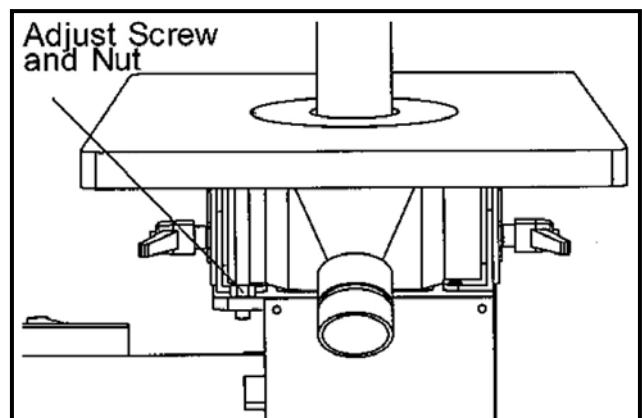


Figure14- Turning the adjustment nut

5. Adjust the table so that the square sits on the table and touches the drum correctly along its entire length without any gap.

TILTING THE SANDER TABLE

The spindle sander table can be tilted to front downward from 0° to 45°.

To tilt the table:

5. Turn off the sander and disconnect the cord from the power source.
6. Loosen the two table lock levers located under the right and left sides of the table.
7. Tilt the table to the desired angle. Look at the graduated scale attached, indicating the tilting degree of the table.
8. Tighten both the lock levers back.

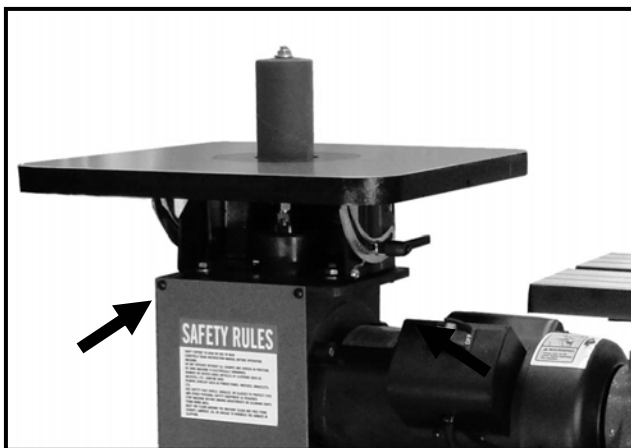


Figure-15 Graduated scale

IMPORTANT

Make sure you have done the tracking adjustment and the belt is centered on both the rollers before you start the sander for a test run. See page-10 for details on belt tracking.

TEST RUN

Once you have assembled your machine completely, it is then time for a test run to make sure that the machine works properly and is ready for operation.

During the test run if there is any unusual noise coming from the machine or the machine vibrates excessively, stop the machine immediately and disconnect from the power source and investigate if you can find out the problem with your machine.



READ THE MANUAL

Before starting the sander, make sure that you have read and understood the manual and you are familiar with the functions and safety features on this machine. Failure to do so may cause serious personal injury.

WORK-PIECE INSPECTION

CX500 is designed to sand wood only. Do not use this machine to sand metals, glass or stone etc.

Before sanding, make sure to inspect the work-piece for nails, staples, small pieces of stone or metal and any other object.

Sanding the work-piece with this kind of objects can tear the sanding paper. Always inspect your work-piece carefully before sanding and wear eye protection.

Some woods with excessive finish or glue load up the sand paper and reduce its usefulness.

WARNING

Make sure the machine's power switch is off and the cord is disconnected from the power source when installing/removing any part or servicing the sander.

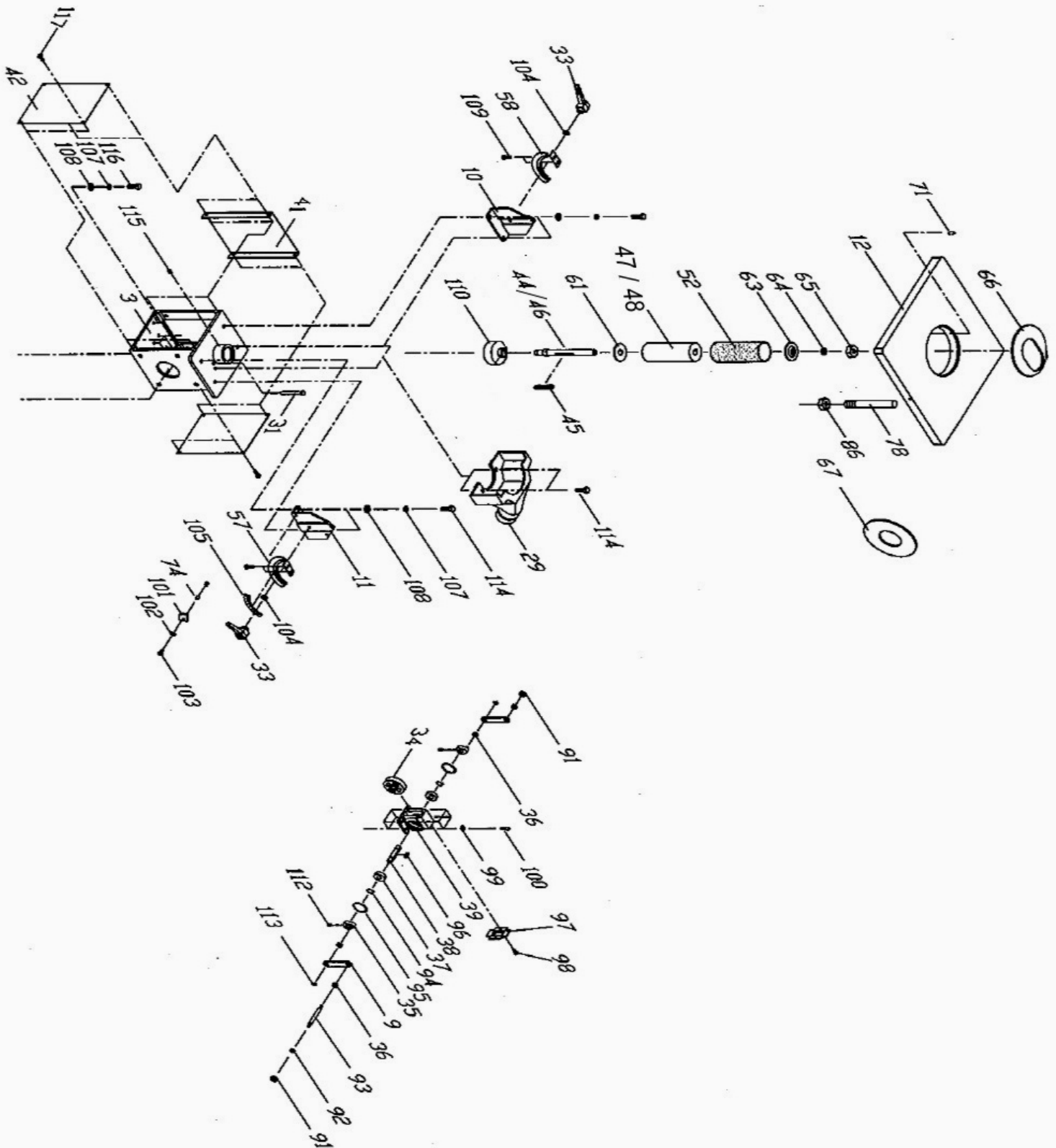
MAINTENANCE

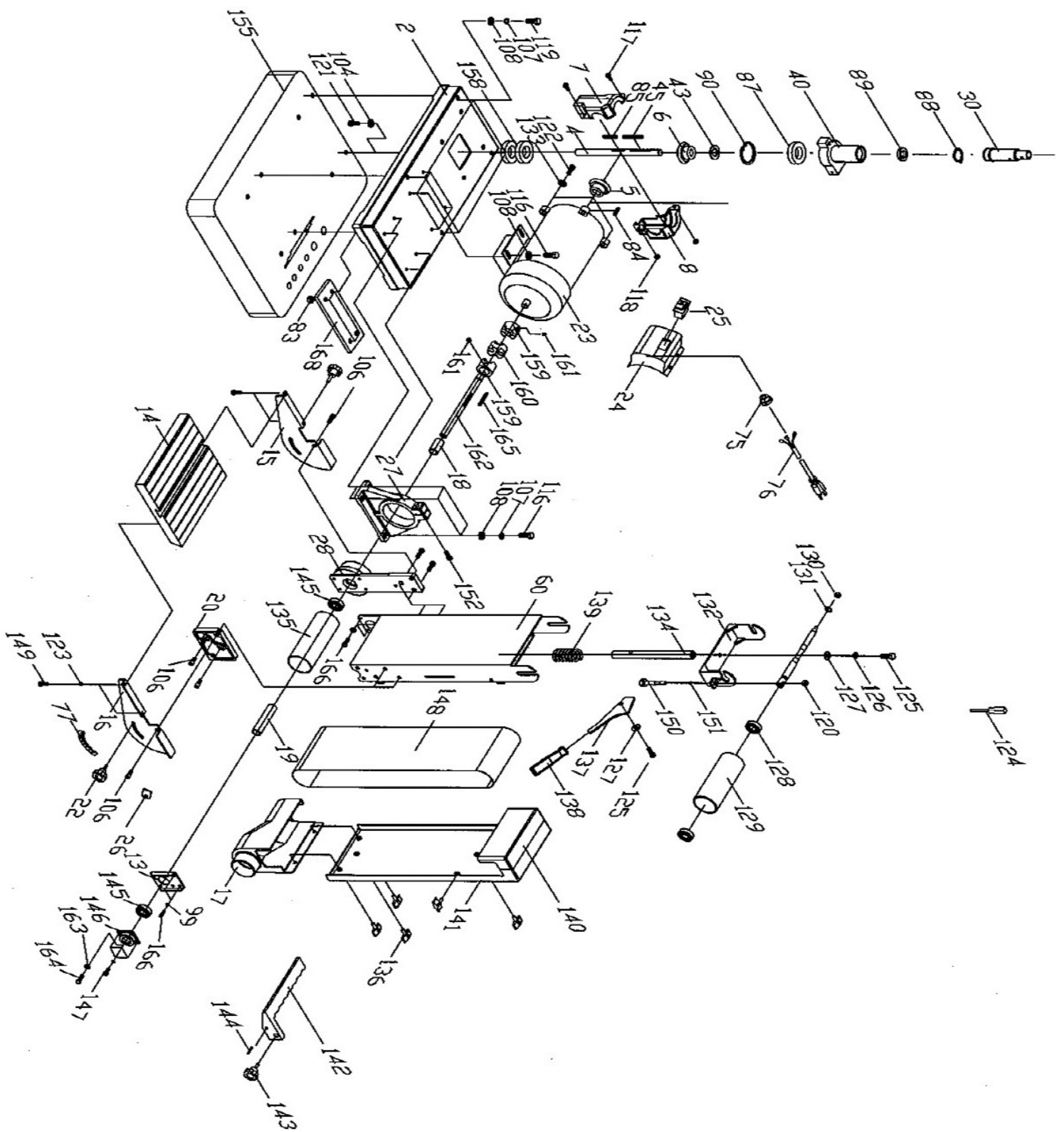
1. It is highly recommended to clean the machine daily after use.
2. When the machine is not in use, turn the switch off and remove the switch key.
3. A build-up of dust in the motor can cause motor damage. Periodic cleaning of the motor is not only recommended, but also mandatory for normal sander performance.
4. Keep the machine and attachments clean.
5. Protect the spindle sleeves from nicks. Clean tapered sleeves and tapered socket before use.
6. All bearings are permanently lubricated and require no further lubrication.

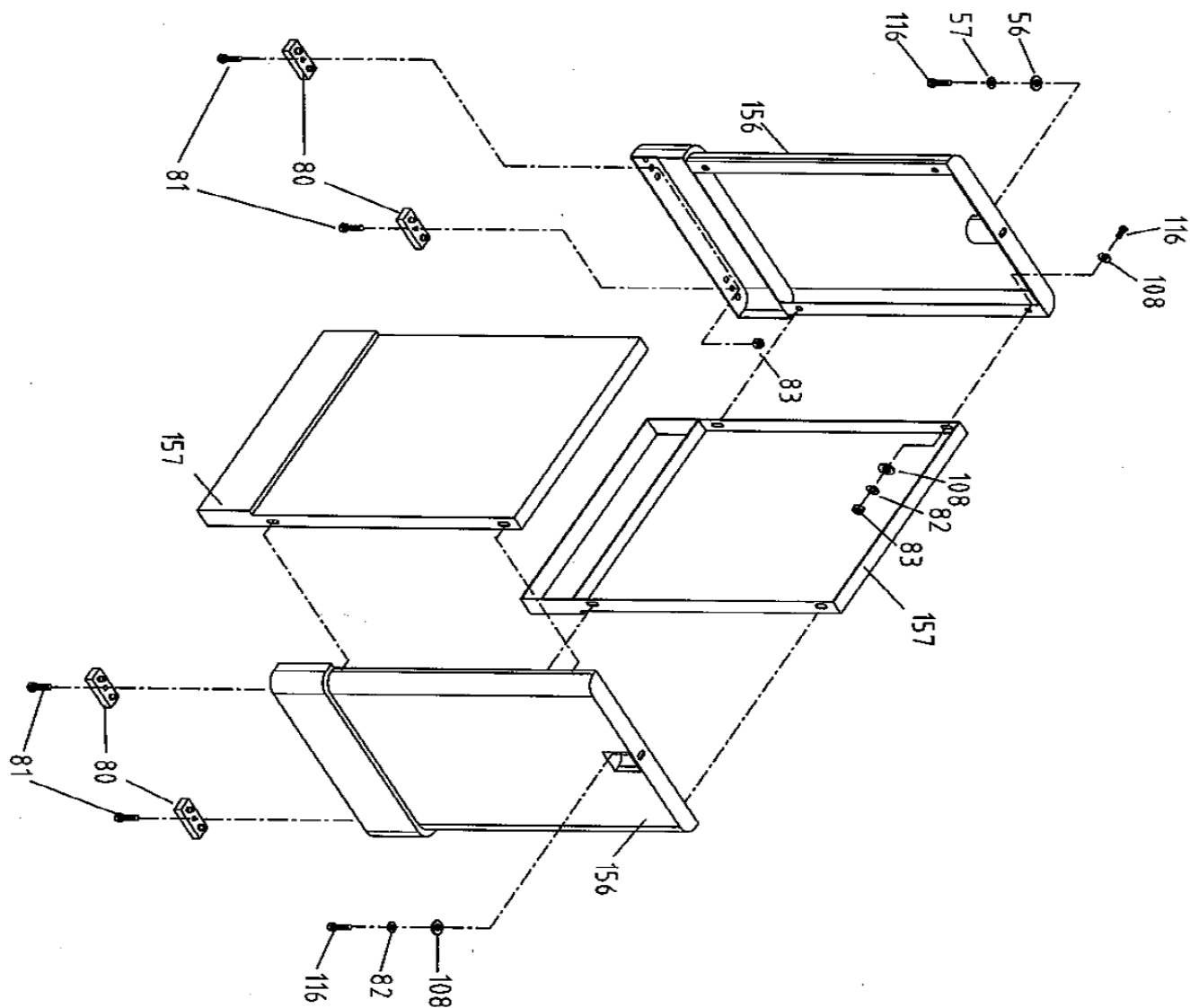
TROUBLESHOOTING

PROBLEM	CAUSES	SOLUTION
Motor does not run when power switch is turned ON.	<ol style="list-style-type: none"> 1. Switch is burnt out. 2. Connection wire is loose or damage. 	<ol style="list-style-type: none"> 1. Replace the switch. 2. Tighten or replace the wire.
Motor does not run at full speed.	<ol style="list-style-type: none"> 1. Power voltage is too low. 2. Motor is damaged. 	<ol style="list-style-type: none"> 1. Test voltage. 2. Check and repair motor.
Machine does not reach full power.	<ol style="list-style-type: none"> 1. Incorrect power wiring 2. Overload 	<ol style="list-style-type: none"> 1. Replace with the correct size wire powering. 2. Reduce sanding load.
Motor over heating	<ol style="list-style-type: none"> 1. Motor is dirty. 2. Motor is damaged 	<ol style="list-style-type: none"> 1. Clean motor. 2. Check and repair motor.
Excessive machine vibration	<ol style="list-style-type: none"> 1. Machine is incorrectly levelled. 	<ol style="list-style-type: none"> 1. Adjust machine levelling.

CX500 PARTS BREAKDOWN







CX500 PARTS LIST

PART#	DESC	RIPTION
2	Base	
3	Frame	
4	Spindle	
5	Helical Bevel Gear	
6	PU Helical Bevel Gear	
7	Right Oil Box	
8	Left Oil Box	
9	Connection Rod	
10	Right Bracket	
11	Left Bracket	
12	Working Table	
13	Bearing Fix Plate	
14	Table	
15	Auxiliary Left Scale Plate	
16	Auxiliary Right Scale Plate	
17	Dust Hood	
18	Short Spacer	
19	Long Spacer	
20	Right Graduated Scale Base	
22	Hand Knob 1/4"-20UNC X 3/8"	
23	Motor	
24	Switch Box	
25	Switch (125/250V.20/12A 4POLES)	
26	Indicator	
27	Tilting Fix Bracket	
28	Connection Block	
29	Dust Hood	
30	ARBOR	
31	Guide Rod	
32	1/4"-24 UNC * 1/4" soc set screw	
33	Handle M6X1X15	
34	Worm Gear	
35	CAM	
36	Copper Sleeve	
37	Ball Bearing 6001zz	
38	Worm Gear Shaft	
39	Worm Gear Housing	
40	Connection Piece	
41	Side Cover	
42	Front and Rear Cover (2PCS)	
43	SPACER	
44	Spindle (5/8")	
45	6mm x 50mm Key	
46	1/4" Spindle	

47	2" Rubber Drum
48	1-1/2" Rubber Drum
52	SANDING SLEEVE(2",1-1/2",5/8",1/4")
57	Right Graduated Scale
58	Left Graduated Scale
59	Sanding Belt Pressure Plate
60	Sanding Platen
61	Upper Pressure Plate 2"
62	Upper Pressure Plate 1 1/2"
63	Upper Pressure Plate 2"
64	Flat Washer 5/16 X 2 X 18
65	5/16"-18UNC Hex Nut
66	2" Table Insert Elliptical
67	2" Table Insert Round
68	3/4" Table Insert Round
69	3/4" Table Insert Elliptical
71	Spring Pin 3 x 12mm
72	Open End Wrench 17mm
73	Open End Wrench
74	Spacing Collar
75	Strain Relief bushing 6N3-4
76	Power Cord
77	Graduated Scale
78	Positioning Rod
79	Spindle Washer
80	Foot Pad
81	SCREW 5/16 X 1/2 X 18UNC
82	Spring Washer 5/16"
83	5/16"-18 UNC Hex Nut
84	5mm x 15mm Key
85	6mm x 30mm Key
86	Hex Nut 3/8"-16UNC
87	Ball Bearing6804zz
88	C CirClip S-27
89	Ball Bearing6006zz
90	C CirClip S-27
91	Locking Nut M5
92	Washer 3/16"
93	Connection Shaft
94	C CirClip STW-12
95	C CirClip R-28
96	4mm x 15mm key
97	Rear Oil Cover
98	Pan Hd Screw 3/16"-24UNC x 1/4"
99	Spring washer 1/*4"

100	Cap Screw M6 X 1 X 15
101	Micrometer Indicator
102	Toothed Washer 1/4"
103	Pan Head Screw M5 X 0.8 X15
104	Flat washer 1/4 X 16
105	Graduated Scale
106	Cap Screw 5/16"-18UNC x 1"
107	Spring washer 5/16"
108	Washer 5/16 X 2 X 18
109	Cap Screw M5 X 0.8 X 15
110	Cover
112	Socket Set Screw M4 X 0.7 X 6
113	E CirClip 4mm
114	Hex Screw M8 X 1.25 X 16
115	Socket Set Screw M6 x 1 x 5
116	Hex Screw 5/16"-18UNC x 1"
117	Pan Head Screw 3/16"-24UNC x 1/2"
118	Locking Nut 3/16"-24UNC
119	Hex Screw 5/16"-18UNC x 3"
120	Locking Nut 5/16" -18UNC
121	Hex Screw 1/4" -20UNC x 1/4"
122	Hex Screw M10 X 1.5 X 25
123	Flat washer 1/4"
124	Screw Driver
125	Hex Screw 5/16 X 1 X18
126	Spring Washer 5/16"
127	Flat Washer 5/16"
128	Bearing 6201
129	Driven Roller
130	Nylon Nut 1/4-20UNC
131	C CirClip STW-12
132	Driven Roller Bracket
133	Washer 3/8"
134	Bracket Shaft
135	Drive Roller
136	Screw 1/4 X 3/8 X20
137	Belt Change Handle
138	Handle Knob
139	Spring
140	Dust Guard A
141	Dust Guard Base
142	Stop Fence
143	Screw M8 X 1.25 X35
144	Spring Pin 4 x 16
145	Bearing 6202
146	Bearing Cap 6202
147	Round Cross Head Screw 3/16" x 1/4"
148	Sanding Belt 6 x 48

149	Hex Hd Screw 1/4" x 3/4"
150	Micrometer adjustment Screw
151	Steel Ball
152	Hex Soc Hd Screw 5/16" x 1"
155	Base
156	Right & Left Plate
157	Front & Rear Spacing Plate
158	Bearing 6003ZZ
159	Coupler
160	Compound Block
161	Set Screw 1/4" x 1/4" x 20
162	Coupled Axle
163	Flat Washer 5/16 X 18
164	Hex Hd Screw 5/16 X 1/2 X 18
165	Key 5 x 5 x 30
166	Hex hd Screw 1/4" x 1/2" x 20
167	Hex Soc Hd screw 1/4" x 1/2" x 20
168	Plate



WARRANTY

CRAFTEX 3 YEARS LIMITED WARRANTY

Craftex warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **three years** for parts and 90 days for labour (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Craftex reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etceteras.

Craftex shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Craftex product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY. Craftex is a brand of equipment that is exclusive to Busy Bee Tools.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your credit card and part number handy.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept *collect* shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repair.